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Mobile apps application to improve safety and health knowledge ,  
attitude and practice among university students (Article)

Ismail, S.N.S.<sup>a</sup> , Rangga, J.U.<sup>a</sup> , Rasdi, I.<sup>a</sup> , Rahman, U.R.A.<sup>a</sup> , Samah, M.A.A.<sup>b</sup>

<sup>a</sup>Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, 43400, Malaysia  
<sup>b</sup>Kulliyyah of Science, International Islamic University Malaysia, Kuantan Pahang, 25200, Malaysia

Abstract

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Introduction: The application of M-learning or mobile application (app) as a tool to disseminate occupational safety and health (OSH) information among students and staff in the university, to replace the use of conventional noticeboard was assessed in this study. Materials and Methods: Study was conducted between February to March 2016 and involved 124 respondents from health sciences program in Universiti Putra Malaysia. OSH information was incorporated into a mobile-app using online software and respondents were requested to use the app for fourteen days. A self-administered questionnaire was used to assess the level of knowledge, attitude and practice of respondents before and after using the app. Results: The mobile app has significantly increased the knowledge score among respondents (z =-7.331, p<0.001). The mean (SD) of knowledge score has increased from 24.39 (5.84) to 30.40 (4.97). The attitude score also has significantly increased from 12.85 (2.04) to 14.02 (2.42) (z=-4.587, p<0.001). The mobile app was not significantly changed the practice (z=-0.688, p=0.491) and the perception among respondents (z=-0.337, p=0.736). Respondents stated that the app was user-friendly (49.4%, N=61), easy to access (N= 64, 51.6%), and have interesting contents (N= 63, 50.8%). They believed continuous used of the app may improve their knowledge (N= 64, 51.6%), and increase their awareness (N= 67, 54.0%) on safety and health. Conclusion: The M-learning (mobile app) has a potential to be used to promote the safety and health culture among students on the campus. © 2018 Faculty of Medicine and Health Sciences. All rights reserved.

Author keywords

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References (31)

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1 Choudhry, R.M., Fang, D., Mohamed, S.  
The nature of safety culture: A survey of the state-of-the-art  
(2007) *Safety Science*, 45 (10), pp. 993-1012. Cited 240 times.  
doi: 10.1016/j.ssci.2006.09.003

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(2015) *Proceedings of the 11th  
International Conference on  
Mobile Learning 2015, ML 2015*

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factor for safety and health at  
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(2016) *Occupational Safety and  
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the International Symposium  
Occupational Safety and  
Hygiene, 2016*

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- 2 Gillen, M., Goldenhar, M.L., Hecker, S., Schneider, S.  
(2013) *Safety Culture and Climate in Construction: Bridging the Gap between Research and Practice*, pp. 10-34. Cited 2 times.  
Washington DC: The Center for Construction Research and Training (CPWR)

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- 3 Stephens, D.W., Fiedler, M.L., Edwards, S.  
(2012) *Creating A Culture of Safety and Leadership*  
Washington DC

- 4 Kumar, R., Chelliah, T.D., Chelliah, M.K., Amienurul, F.M.A.  
An analysis on Safety Work Culture in Malaysian Manufacturing Industry  
(2012) *BioInfo Business Management*, 2 (1), pp. 11-15. Cited 4 times.  
<http://www.bioinfo.in/contents.phpid=172AN>

- 5 Nee, H.  
Safety culture in Malaysian workplace  
(2014) *An Analysis of Occupational Accidents Health and the Environment Journal*, 5 (3), pp. 32-43. Cited 6 times.

- 6 Schulte, P.A., Stephenson, C.M., Okun, A.H., Palassis, J., Biddle, E.  
**Integrating occupational safety and health information into vocational and technical education and other workforce preparation programs**  
(2005) *American Journal of Public Health*, 95 (3), pp. 404-411. Cited 37 times.  
doi: 10.2105/AJPH.2004.047241  
[View at Publisher](#)

- 7 Sivaprakash, P., Sakthivel, M.  
**Discussion on accidents, hazards and risks in industries - A review**  
(2011) *European Journal of Scientific Research*, 52 (1), pp. 38-43. Cited 2 times.  
[http://www.eurojournals.com/EJSR\\_52\\_1\\_04.pdf](http://www.eurojournals.com/EJSR_52_1_04.pdf)

- 8 Ibrahim, S.N., Hassan, S.N., Hassan, S.A.H.S., Nooh, M.N., Yusof, N.M.  
The Awareness Level of Behaviour Based Safety (BBS) construction industry  
(2015) *International Journal of Engineering Research and Reviews*, 3 (1), pp. 26-33.  
[www.researchpublish.com](http://www.researchpublish.com)

- 9 Eng, K.K., Md Zain, A.N., Mohamed Zainal, S.R.  
**Review on OSH in engineering education the importance of integration safety curricula into engineering laboratories**  
(2010) *2010 2nd International Congress on Engineering Education: Transforming Engineering Education to Produce Quality Engineers, ICEED2010*, art. no. 5940795, pp. 219-224.  
ISBN: 978-142447311-3  
doi: 10.1109/ICEED.2010.5940795  
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